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10/825,700	04/16/2004	Christopher James Elphinstone Chandler	5760-20800/VRTS0578	9182

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Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Detailed Action

1.   Claims 1-32 are pending in this application.

Claim Rejections - 35 USC § 101

2.   Claims 1-32 are rejected under 35 U.S.C. 101 for nonstatutory subject matter. The computer system must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77. The invention is ineligible because it has not been limited to a substantial practical application. The terms 'generate an answer', 'confidence level' and 'policy evaluation' are vague and can fall outside a real world function and or purpose. 'Confidence level' is nothing more than a number on a scale and 'generate an answer and 'policy evaluation' can be almost anything.

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete." If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101.

The phrase 'policy evaluation', is not clear in its purpose or scope. Is the 'policy evaluation' a set of instructions for a repair or just a value indicating a status condition of a IT network? The system must have a real world purpose.

The invention must be for a practical application and either:

1) specify transforming (physical thing) or

2) have the FINAL RESULT (not the steps) achieve or produce a

useful (specific, substantial, AND credible),

concrete (substantially repeatable/ non-unpredictable), AND

tangible (real world/ non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject matter, must be amended, and if the specification discloses a practical application but the claim is broader than the disclosure such that it does not require the practical application, then the claim must be amended.

Claims the only recite the generation of 'confidence level', 'to generate an answer' and 'policy evaluation' are not statutory.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the

subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 8-12, 14-19, 21-24, 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al in view of Janssens, and further in view of Smith et al. (U. S. Patent Publication 20030051026, referred to as **Carter**; 'Inequalities in Fuzzy Probability Calculus', referred to as **Janssens**; U. S. Patent Publication 20030172133, referred to as **Smith**)

Claim 1.

Carter teaches a processor (**Carter, ¶0588**); and a memory comprising program instructions, wherein the program instructions are executable by the processor to implement a policy evaluation mechanism configured to evaluate policies to provide automated computer system administration in an information technology (IT) environment, wherein, to evaluate policies, the policy evaluation mechanism is configured to (**Carter,** abstract; 'Policy evaluation mechanism', 'automated computer system', 'information technology environment' of applicant is equivalent to 'monitors', 'autonomously alters', 'network communications' of Carter.): access a policy and information relevant to an evaluation of the policy. (**Carter, ¶0228;**'Policy', and 'Information relevant' of applicant is equivalent to 'Network Surveillance and Security Systems' and 'intrusion information' of Carter.)

Carter does not teach and evaluate the policy according to the information using two or more inference techniques.

Janssens teaches and evaluate the policy according to the information using two or more inference techniques. (**Janssens,** abstract, p211:11-15; 'Two or more inference techniques' of applicant is equivalent to 'probability calculus' and ;fuzzy logic' of Janssens.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Carter by using two separate technique for evaluation as taught by Janssens to evaluate the policy according to the information using two or more inference techniques.

For the purpose of having one technique overcome the shortcoming of the second technique and visa-versa.

Carter and Janssens do not teach to generate an answer and a confidence level for the policy evaluation.

Smith teaches to generate an answer and a confidence level for the policy evaluation (**Smith,** abstract). It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify combined teachings of Carter and Janssens by generating a confidence value for a given solution as taught by Smith to generate an answer and a confidence level for the policy evaluation.

For the purpose of a indicator for the automated system or an operator.

Claims 2, 17.

Carter does not teach wherein the inference techniques include one or more of probability calculus, fuzzy logic and evidential logic.

Janssens teaches wherein the inference techniques include one or more of probability calculus, fuzzy logic and evidential logic. (**Janssens,** abstract, p211:11-15; 'Two or more inference techniques' of applicant is equivalent to 'probability calculus' and ;fuzzy logic' of Janssens.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Carter by using specified inference techniques as taught by Janssens to have inference techniques include one or more of probability calculus, fuzzy logic and evidential logic.

For the purpose of having one technique overcome the shortcoming of the second technique and visa-versa.

Claims 3, 10.

Carter and Janssens do not teach the policy evaluation mechanism is further configured to provide the answer and the confidence level to a user of the system.

Smith teaches the policy evaluation mechanism is further configured to provide the answer and the confidence level to a user of the system. (**Smith,** abstract)   It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify combined teachings of Carter and Janssens by displaying to the operator the confidence level of a answer as taught by Smith to have the policy evaluation mechanism is further configured to provide the answer and the confidence level to a user of the system.

For the purpose of having the operator the ability to oversee the automated system.

Claims 4, 11, 18, 23, 27.

Carter teaches wherein the policy evaluation mechanism is further configured to initiate a process automatically in the IT environment if the answer and the confidence level for the policy evaluation indicate that the process can be performed according to a predetermined confidence threshold. (**Carter,** ¶0791)

Claim 5.

Carter teaches wherein the policy evaluation mechanism is configured to evaluate policies to provide automated administration for one or more of a storage management mechanism and an application management mechanism. (**Carter,** ¶0228 and 0231)

Claim 8.

Carter teaches and means for providing automated computer system administration in an information technology (IT) environment according to the policy evaluations. (**Carter,** abstract; 'automated computer system', 'information technology environment', 'policy evaluation' of applicant is equivalent to 'autonomously alters', 'network communications', 'monitors' of Carter.)

Carter does not teach the means for evaluating policies using two or more inference techniques.

Janssens teaches means for evaluating policies using two or more inference techniques (**Janssens,** abstract, p211:11-15; 'Two or more inference techniques' of applicant is equivalent to 'probability calculus' and 'fuzzy logic' of Janssens.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Carter by using two seperate inference engines as taught by Janssens to have means for evaluating policies using two or more inference techniques

For the purpose of having one technique overcome the shortcoming of the second technique and visa-versa.

Carter and Janssens do not teach to generate an answer and a confidence level for the policy evaluations.

Smith teaches to generate an answer and a confidence level for the policy evaluations. (**Smith,** abstract) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify combined teachings of Carter and Janssens by correlating a value to a solution for a given problem as taught by Smith to generate an answer and a confidence level for the policy evaluations.

For the purpose of using the value as a indicator for possible reactions.

Claim 9.

Carter teaches evaluating policies to provide automated computer system administration in an information technology (IT) environment, wherein said evaluating policies comprises (**Carter,** abstract; 'Evaluating policies', 'automated computer system', 'information technology environment' of applicant is equivalent to 'monitors', 'autonomously alters', 'network communications'): accessing a policy and information relevant to an evaluation of the policy. (**Carter,** ¶0228;'Policy', and 'Information relevant' of applicant is equivalent to 'Network Surveillance and Security Systems' and 'intrusion information' of Carter.)

Carter does not teach evaluating the policy according to the information using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate an answer.

Janssens teaches evaluating the policy according to the information using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate an answer. (**Janssens,** abstract, p211:11-15; 'Two or more inference techniques' of applicant is equivalent to 'probability calculus' and 'fuzzy logic' of Janssens.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Carter by specifying what inference techniques are required as taught by Janssens to evaluate the policy according to the information using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate an answer

For the purpose of having one technique overcome the shortcoming of the second technique and visa-versa.

Carter and Janssens do not teach and a confidence level for the policy

evaluation.

Smith teaches a confidence level for the policy evaluation (**Smith,** abstract). It

would have been obvious to a person having ordinary skill in the art at the time of

applicant's invention to modify combined teachings of Carter and Janssens by

generating a correlating value for a solution for a given problem as taught by Smith to

have a confidence level for the policy evaluation.

For the purpose of using the value as a indicator or flag for future actions.

Claims 12, 15, 19, 24, 28

Carter teaches wherein said automated computer system administration in the IT

environment (**Carter,** abstract) comprises automated administration of one or more of

a storage management mechanism and an application management mechanism.

(**Carter,** ¶0218; 'Storage management mechanism' and 'application management

mechanism' of applicant is equivalent to 'specialized database algorithm' and 'expert

system security intelligence layer' of Carter.)

Claim 14.

Carter teaches evaluating policies to provide automated computer system

administration in an information technology (IT) environment, wherein said evaluating

policies comprises (**Carter,** abstract; 'Evaluating policies', 'automated computer

system', 'information technology environment' of applicant is equivalent to 'monitors',

'autonomously alters', 'network communications'): accessing a policy and information relevant to an evaluation of the policy. (**Carter,** ¶0228;'Policy', and 'Information relevant' of applicant is equivalent to 'Network Surveillance and Security Systems' and 'intrusion information' of Carter.)

Carter does not teach evaluating the policy according to the information using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate an answer.

Janssens teaches evaluating the policy according to the information using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate an answer (**Janssens,** abstract, p211:11-15; 'Two or more inference techniques' of applicant is equivalent to 'probability calculus' and ;fuzzy logic' of Janssens.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Carter by specifying specific inference techniques as taught by Janssens to evaluate the policy according to the information using two or more inference techniques including one or more of probability calculus, fuzzy logic and evidential logic to generate an answer.

For the purpose of having one technique overcome the shortcoming of the second technique and visa-versa.

Carter and Janssens do not teach and a confidence level for the policy evaluation.

Smith teaches a confidence level for the policy evaluation. (**Smith,** abstract) It would have been obvious to a person having ordinary skill in the art at the time of applicant's

invention to modify combined teachings of Carter and Janssens by associating a

confidence value for a solution for a given problem as taught by Smith to have a

confidence level for the policy evaluation.

For the purpose of using the value as a flag or indicator for an future action.

Carter teaches automatically initiating a process in the IT environment if the

answer and the confidence level for the policy evaluation indicate that the process can

be performed according to a predetermined confidence threshold. (**Carter,** ¶0239;

'Automatically initiating' of applicant is equivalent to 'self-initiated' of Carter.)

Claim 16.

Carter teaches a processor (**Carter,** ¶0588); and a memory comprising program

instructions, wherein the program instructions are executable by the processor to

implement a self-tuning policy evaluation mechanism configured to evaluate policies to

provide automated computer system administration in an information technology (IT)

environment, wherein the self-tuning policy evaluation mechanism is configured to

(**Carter,** Abstract; 'Self-tuning policy', 'evaluate policies', 'automated computer system

administration', 'information technology environment' of applicant is equivalent to

'autonomously alters', 'monitors', 'updates autonomously', 'network communications' of

Carter.)

Carter does not teach evaluate a policy according to information relevant to an

evaluation of the policy using two or more inference techniques to generate results

including an answer.

Janssens teaches evaluate a policy according to information relevant to an

evaluation of the policy using two or more inference techniques to generate results

including an answer (**Janssens,** abstract, p211:11-15; 'Two or more inference

techniques' of applicant is equivalent to 'probability calculus' and ;fuzzy logic' of

Janssens.)   It would have been obvious to a person having ordinary skill in the art at

the time of applicant's invention to modify the teachings of Carter by indicating specific

inference techniques as taught by Janssens to evaluate a policy according to

information relevant to an evaluation of the policy using two or more inference

techniques to generate results

including an answer.

For the purpose of having one technique overcome the shortcoming of the

second technique and visa-versa.

Carter and Janssens do not teach a confidence level for the policy evaluation.

Smith teaches a confidence level for the policy evaluation. (**Smith,** abstract) It

would have been obvious to a person having ordinary skill in the art at the time of

applicant's invention to modify combined teachings of Carter and Janssens by

generating a value and correlate to a solution for a given problem as taught by Smith to

have a confidence level for the policy evaluation.

For the purpose of using that value as a flag or a indicator for future actions.

Carter teaches storing the results of the policy evaluation in a database of

historical information about the policy (**Carter,** ¶0006; 'Policy evaluation in a database

of historical information' of applicant is equivalent to 'determine the correct response'

of it's 'knowledge base' of Carter.); and access the historical information stored in the

database in subsequent evaluations of the policy to generate more accurate results.

(**Carter,** ¶0006; 'Policy to generate more accurate results' of applicant is equivalent to

'drawing comparisons to prior occurrences to infer appropriate countermeasures' of

Carter.)

Claim 21.

Carter does not teach means for evaluating policies using two or more

inference techniques to generate results including an answer.

Janssens teaches means for evaluating policies using two or more inference

techniques to generate results including an answer. (**Janssens,** abstract, p211:11-15;

'Two or more inference techniques' of applicant is equivalent to 'probability calculus'

and ;fuzzy logic' of Janssens.) It would have been obvious to a person having ordinary

skill in the art at the time of applicant's invention to modify the teachings of Carter by

indicating specific inference techniques as taught by Janssens to teach means for

evaluating policies using two or more inference techniques to generate results

including an answer.

For the purpose of having one technique overcome the shortcoming of the

second technique and visa-versa.

Carter and Janssens do not teach and a confidence level for the policy

evaluations.

Smith teaches a confidence level for the policy evaluations. (**Smith,** abstract) It

would have been obvious to a person having ordinary skill in the art at the time of

applicant's invention to modify combined teachings of Carter and Janssens by

correlating a generated value for a solution for a given problem as taught by Smith to

have a confidence level for the policy evaluations.

For the purpose of using the value as a flag or indicator for future action by the

system or operator.

Carter teaches means for storing the results of the policy evaluations as

historical information about the policy evaluations (**Carter,** ¶0006; 'Policy evaluation in

a database of historical information' of applicant is equivalent to 'determine the correct

response' of it's 'knowledge base' of Carter.); and means for applying the historical

information in subsequent evaluations of the policy to generate more accurate results.

(**Carter,** ¶0006; 'Policy to generate more accurate results' of applicant is equivalent to

'drawing comparisons to prior occurrences to infer appropriate countermeasures' of

Carter.)

Claim 22.

Carter teaches evaluating policies to provide automated computer system

administration in an information technology (IT) environment, wherein said evaluating

policies comprises. (**Carter,** abstract; 'Evaluating policies', 'automated computer

system administration', 'information technology (IT) environment' of applicant is

equivalent to 'monitors', 'updates autonomously', 'network communications' of Carter.)

Carter does not teach evaluating a policy according to information relevant to
an evaluation of the policy using two or more inference techniques including one or
more of probability calculus, fuzzy logic and evidential logic to generate results
including an answer.

Janssens teaches evaluating a policy according to information relevant to an
evaluation of the policy using two or more inference techniques including one or more
of probability calculus, fuzzy logic and evidential logic to generate results including an
answer. (**Janssens,** abstract, p211:11-15; 'Two or more inference techniques' of
applicant is equivalent to 'probability calculus' and ;fuzzy logic' of Janssens.) It would
have been obvious to a person having ordinary skill in the art at the time of applicant's
invention to modify the teachings of Carter by specifying specific inference techniques
as taught by Janssens to evaluate a policy according to information relevant to an
evaluation of the policy using two or more inference techniques including one or more
of probability calculus, fuzzy logic and evidential logic to generate results including an
answer.

For the purpose of having one technique overcome the shortcoming of the
second technique and visa-versa.

Carter and Janssens do not teach a confidence level for the policy evaluation.
Smith teaches a confidence level for the policy evaluation. (**Smith,** abstract) It would
have been obvious to a person having ordinary skill in the art at the time of applicant's
invention to modify combined teachings of Carter and Janssens by generating a value

and correlate it to a solution for a given problem as taught by Smith to have a

confidence level for the policy evaluation.

For the purpose of using the value as a flag or indicator for future actions.

Carter teaches storing the results of the policy evaluation in a database of

historical information about the policy (**Carter,** ¶0006; 'Policy evaluation in a database

of historical information' of applicant is equivalent to 'determine the correct response'

of it's 'knowledge base' of Carter.); and accessing the historical information stored in

the database in subsequent evaluations of the policy to generate more accurate results.

(**Carter,** ¶0006; 'Policy to generate more accurate results' of applicant is equivalent to

'drawing comparisons to prior occurrences to infer appropriate countermeasures' of

Carter.)

Claim 26.

Carter does not teach evaluating a policy according to information relevant to

an evaluation of the policy using two or more inference techniques including one or

more of probability calculus, fuzzy logic and evidential logic to generate results

including an answer.

Janssens teaches evaluating a policy according to information relevant to an

evaluation of the policy using two or more inference techniques including one or more

of probability calculus, fuzzy logic and evidential logic to generate results including an

answer. (**Janssens,** abstract, p211:11-15; 'Two or more inference techniques' of

applicant is equivalent to 'probability calculus' and ;fuzzy logic' of Janssens.) It would

have been obvious to a person having ordinary skill in the art at the time of applicant's

invention to modify the teachings of Carter by specifying specific inference techniques

as taught by Janssens to evaluate a policy according to information relevant to an

evaluation of the policy using two or more inference techniques including one or more

of probability calculus, fuzzy logic and evidential logic to generate results including an

answer.

For the purpose of having one technique overcome the shortcoming of the

second technique and visa-versa.

Carter and Janssens do not teach a confidence level for the policy evaluation.

Smith teaches a confidence level for the policy evaluation. (**Smith,** abstract) It

would have been obvious to a person having ordinary skill in the art at the time of

applicant's invention to modify) combined teachings of Carter and Janssens by

generating a value the correlates to a solution for a given problem as taught by Smith to

have a confidence level for the policy evaluation.

For the purpose of using the value as a indicator or a flag for future actions.

Carter teaches storing the results of the policy evaluation in a database of

historical information about the policy (**Carter,** ¶0006; 'Policy evaluation in a database

of historical information' of applicant is equivalent to 'determine the correct response' of

it's 'knowledge base' of Carter.); and accessing the historical information stored in the

database in subsequent evaluations of the policy to generate more accurate results.

(**Carter,** ¶0006; 'Policy to generate more accurate results' of applicant is equivalent to

'drawing comparisons to prior occurrences to infer appropriate countermeasures' of

Carter.)

Claim 29.

Carter teaches a plurality of decision engines comprising (**Carter,** Fig. 3, ¶0371

and ¶0372; The 'event learning and neural artificial intelligence' and 'research

functions and acceptance and validation' are two local decision engines for the 'expert

system security intelligence layer'.); one or more local decision engines each

configured to provide automated administration for one component in the IT

environment according to one or more local policies for the component (**Carter,**

abstract; 'Automated administration', 'IT environment', 'local policies' of applicant is

equivalent to 'updates autonomously', 'network communications', 'monitors' of Carter.);

and a central decision engine configured to provide automated administration of the IT

environment according to one or more high-level policies for the IT environment.

(**Carter,** ¶0880)

Carter does not teach wherein each of the decision engines is configured to:

evaluate a policy associated with the decision engine according to information relevant

to an evaluation of the policies using two or more inference techniques including

probability calculus, fuzzy logic and evidential logic to generate results including an

answer.

Janssens teaches wherein each of the decision engines is configured to:

evaluate a policy associated with the decision engine according to information relevant

to an evaluation of the policies using two or more inference techniques including probability calculus, fuzzy logic and evidential logic to generate results including an answer. (**Janssens,** abstract, p211:11-15; 'Two or more inference techniques' of applicant is equivalent to 'probability calculus' and 'fuzzy logic' of Janssens.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Carter by specifying specific inference techniques as taught by Janssens to have wherein each of the decision engines is configured to: evaluate a policy associated with the decision engine according to information relevant to an evaluation of the policies using two or more inference techniques including probability calculus, fuzzy logic and evidential logic to generate results including an answer.

For the purpose of having one technique overcome the shortcoming of the second technique and visa-versa.

Carter and Janssens do not teach a confidence level for the policy evaluation.

Smith teaches a confidence level for the policy evaluation. (**Smith,** abstract) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify combined teachings of Carter and Janssens by generating a value that correlates to a solution for a given problem as taught by Smith to have a confidence level for the policy evaluation.

Smith teaches a confidence level for the policy evaluation.

For the purpose of using the value as a flag or indicator for future actions.

Carter teaches automatically initiate a process in the IT environment if the

answer and the confidence level for the policy evaluation indicate that the process can

be performed according to a predetermined confidence threshold. (**Carter,** ¶0239;

'Automatically initiating' of applicant is equivalent to 'self-initiated' of Carter.)

Claim 30.

Carter teaches the components include one or more of a storage management

mechanism and an application management mechanism. (**Carter,** ¶0218; 'Storage

management mechanism' of applicant is equivalent to 'specialized database algorithm'

of Carter.)

Claim 31.

Carter teaches he local decision engines are further configured to provide the

results of local policy evaluations to the central decision engine for use in evaluations

of the high-level policies for the IT environment. (**Carter,** ¶0371, ¶0372 and Fig. 4

items 428 and 432; 'Local decision engines' of applicant is equivalent to "machine

learning' and 'neural network security algorithms' of Carter.)

Claim 32.

Carter teaches to provide automated administration of the IT environment

according to one or more high-level policies for the IT environment, the central

decision engine is configured to. (**Carter,** ¶0218; The 'expert system security intelligence layer' is a high-level policy for the IT environment.)

Carter does not teach evaluate the high-level policies using two or more inference techniques to generate results including answers.

Janssens teaches evaluate the high-level policies using two or more inference techniques to generate results including answers. (**Janssens,** abstract, p211:11-15; 'Inference techniques' of applicant is equivalent to 'probability calculus' and fuzzy logic' of Janssens.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify the teachings of Carter by specifying specific inference techniques as taught by Janssens to evaluate the high-level policies using two or more inference techniques to generate results including answers.

For the purpose of having one technique overcome the shortcoming of the second technique and visa-versa.

Carter and Janssens do not teach associated confidence levels for the high-level policy evaluations.

Smith teaches associated confidence levels for the high-level policy evaluations. (**Smith,** abstract) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify combined teachings of Carter and Janssens by generating a value associated to a solution for a given problem as taught by Smith to associated confidence levels for the high-level policy evaluations.

For the purpose of using the value as a flag or indicator for a future action.

Carter teaches delegate local policies to the one or more local decision engines for evaluation. (**Carter,** Fig. 3, ¶0371 and ¶0372; The 'event learning and neural artificial intelligence' and 'research functions and acceptance and validation' are two local decision engines for the 'expert system security intelligence layer'.)

Claim Rejections - 35 USC § 103

4.   Claims 6, 7, 13, 20, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Carter, Janssens and Smith, as set forth above, and further in view of Cao ('A Deductive probabilistic and Fuzzy Object-Oriented Database Language', referred to as **Cao**)

Claim 6.

Carter, Janssens and Smith do not teach wherein the inference techniques are implemented according to an uncertainty logic programming language.

Cao teaches wherein the inference techniques are implemented according to an uncertainty logic programming language. (**Cao,** abstract; FRIL and FRIL++ are examples of an uncertainty logic programming language.) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify combined teachings of Carter, Janssens and Smith by introducing a computer language that lends itself to inference functions as taught by Cao to have the inference techniques are implemented according to an uncertainty logic programming language.

For the purpose of allowing probabilistic uncertainties and fuzzy sets to be included.

Claims 7, 13, 20, 25.

Carter, Janssens and Smith do not teach wherein the uncertainty logic programming language is one of Fuzzy Relational Inference Language (FRIL) and FRIL++.

Cao teachers wherein the uncertainty logic programming language is one of Fuzzy Relational Inference Language (FRIL) and FRIL++. (**Cao,** abstract) It would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to modify combined teachings of Carter, Janssens and Smith by specifying the computer languages FRIL and FRIL++ as taught by Cao to have the uncertainty logic programming language is one of Fuzzy Relational Inference Language (FRIL) and FRIL++.

For the purpose of needing uncertain class hierarchies thus FRIL++ is used.

Conclusion

5.   The prior art of record and not relied upon is considered pertinent to the applicant's disclosure.

-U. S. Patent Publication 20030033402: Battat

-U. S. Patent Publication 20030014500: Schleiss

-U. S. Patent Publication 20020069235: Chen

-U. S. Patent Publication 20020010679: Feisher

6.   Claims 1-32 are rejected.

Correspondence Information

7.   Any inquiry concerning this information or related to the subject disclosure should

be directed to the Examiner Peter Coughlan, whose telephone number is (571) 272-

5990. The Examiner can be reached on Monday through Friday from 7:15 a.m. to 3:45

p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor David Vincent can be reached at (571) 272-3687. Any response to this

office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);

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Peter Coughlan

4/18/2006